SUPPLEMENTARY MATERIAL

A new analytical protocol for the determination of 62 endocrine-disrupting compounds in indoor air

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Table S-1. Spiking amounts of surrogate and internal standards

Surrogate Standard	Spiking amount (ng)
DEP d4	2000
DEHP d4	2000
Musk xylene d15	100
13C Octylphenol	50
13C Dimethyl heptyl phenol	50
13C Octylphenol monoethoxylate	50
13C Dimethyl heptyl phenol monoethoxylate	50
Bisphenol A d16	1150
TBBPA 13C	50
13C Methyl Paraben	25
13C Ethyl Paraben	25
13C Propyl Paraben	25
Phenanthrene d10	33.3
Pyrene d10	33.3
Benzo(a)anthracene d12	33.3
13C Cypermethrin	100
Lindane d6	10
PCB 30	10
PCB 107	10
13C PBDE 47	4.94
13C PBDE 153	4.94
13C HBCD	25
13C Triclosan	25

Internal Standard	Spiking amount (ng)
DMP d4	1000
DnOP d4 for cypermethrin analysis	100
DnOP d4 for phthalates analysis	1000
Benzofluoranthene d12	50
Octylphenol d2	50
Octylphenol monoethoxylate d2	50
Octylphenol diethoxylate d2	50
Bisphenol A d8 for TBBPA analysis	50
Bisphenol A d8 for Bisphenol A analysis	500
13C Butyl Paraben	20
Fluorene d10	20
Fluoranthene d10	20
Dibenzo(a,h)anthracene d14	20
13C PCB 194	15
CB 209	5.4
BB 209	5.4
α-HBCD d18	20

Table S-2. Chromatographic conditions for liquid chromatography analysis

Chromatography	Apparatus	Injector	Column	Mobile phase
LC/MS/MS ESI	Agilent LC Series (SL series 1200) triple quad (G6410 BA)	Standard: 10 µl	Zorbax Eclipse XDB-C18 (4.6 X 50 mm; 1.8 µm; Agilent, Massy, France). Heated at 50°C.	0.5 ml/min

Table S-3. Mass spectrometry parameters for parabens, TBBPA, triclosan and HBCD analysis by LC/MS/MS

Compound	Surrogate standard	Internal standard	Source	Fragmentor energy (V)	Quantification transition		Qualification transition		RT (min)
					m/z	CE (eV)	m/z	CE (eV)	
Methyl Paraben	13C Methyl Paraben	-	ESI negative mode; N_2; 350°C; gas flow: 660 l/h; Capillary: 4000 V; Collision gas: N_2	80	151.1 -> 92.0	18	151.1 -> 136.0	6	2.800
Ethyl Paraben	13C Ethyl Paraben	-		110	165.1 -> 92.0	18	165.1 -> 137.0	10	3.900
Propyl Paraben	13C Propyl Paraben	-		110	179.2 -> 92.0	18	179.2 -> 136.0	10	4.400
Butyl Paraben	13C Propyl Paraben	-		110	193.2 -> 92.0	18	193.2 -> 136.0	10	6.300
Triclosan	13C Triclosan	-		80	288.5 -> 34.9	6	288.5 -> 37.1	6	9.000
TBBPA	13C TBBPA	-		110	542.9 -> 78.9	62	542.9 -> 81.0	62	9.100
HBCD	13C HBCD	-		80	640.7 -> 78.5	14	640.7 -> 81.1	34	11.098
13C Methyl Paraben	-	13C Butyl Paraben		80	157.1 -> 98.0	18	157.1 -> 142.0	10	2.800
13C Ethyl Paraben	-	13C Butyl Paraben		110	171.1 -> 98.0	18	171.1 -> 143.0	6	3.900
13C Propyl Paraben	-	13C Butyl Paraben		110	185.2 -> 98.0	18	185.2 -> 142.0	6	5.082
13C Triclosan	-	13C Butyl Paraben		80	300.4 -> 35.0	6	300.4 -> 37.0	6	9.000
13C TBBPA	-	BPA d8		110	554.9 -> 78.8	54	554.9 -> 81.0	65	9.100
13C HBCD	-	a-HBCD d18		80	652.6 -> 78.9	10	652.6 -> 80.9	10	11.102
13C Butyl paraben	-	-		110	199.2 -> 98.0	22	199.2 -> 142.0	10	6.559
BPA d8	-	-		110	235.3 -> 220.1	14	235.3 -> 137.1	22	5.700
a-HBCD d18	-	-		80	658.8 -> 81.0	14	658.8 -> 79.0	18	10.841

Table S-4. Mass spectrometry parameters for bisphenol A and alkylphenols analysis by LC/MS/MS

Compound	Surrogate standard	Internal standard	Source	Fragmentor energy (V)	Quantification transition		Qualification transition		RT (min)
					m/z	CE (eV)	m/z	CE (eV)	
Bisphenol A	Bisphenol A d16	-	ESI negative mode; N_2; 350°C; gas flow: 660 l/h; Capillary: 4000 V; Collision gas: N_2	110	227.3 -> 212.0	14	227.3 -> 133.0	22	5.500
4-t-Octylphenol	13C Octylphenol	-			205.3 -> 133.0	22	205.3 -> 117.1	65	9.700
Nonylphenol	13C Dimethyl heptyl phenol	-			219.3 -> 133.0	30	219.3 -> 117.2	62	10.279
Bisphenol A d16	-	Bisphenol A d8			241.3 -> 223.1	14	241.3 -> 142.1	22	5.500
13C Octylphenol	-	Octylphenol d2			211.3 -> 139.1	22	211.3 -> 122.9	65	9.700
13C Dimethyl heptyl phenol	-	Octylphenol d2			225.3 -> 139.0	30	225.3 -> 123.0	58	10.500
Bisphenol A d8	-	-			235.3 -> 220.1	14	235.3 -> 137.1	22	5.700
Octylphenol d2	-	-			207.3 -> 135.0	22	207.3 -> 118.9	62	9.600

Table S-5. Mass spectrometry parameters for alkylphenol ethoxylates analysis by LC/MS/MS

Compound	Surrogate standard	Internal standard	Source	Fragmentor energy (V)	Quantification transition		Qualification transition		RT (min)
					m/z	CE (eV)	m/z	CE (eV)	
Octylphenol monoethoxylate	13C Octylphenol monoethoxylate	-	ESI positive mode; N_2; 350°C; gas flow: 660 l/h; Capillary: 4000 V; Collision gas: N_2	80	268.4 -> 57.1	10	268.4 -> 113.1	6	9.850
Octylphenol diethoxylate	13C Octylphenol monoethoxylate	-			312.5 -> 183.0	6	312.5 -> 57.1	26	10.000
Nonylphenol monoethoxylate	13C Dimethyl heptyl phenol monoethoxylate	-			282.4 -> 127.1	2	282.4 -> 71.0	6	10.500
Nonylphenol diethoxylate	13C Dimethyl heptyl phenol monoethoxylate	-			326.5 -> 183.0	6	326.5 -> 121.0	18	10.500
13C Octylphenol monoethoxylate	-	Octylphenol monoethoxylate d2			274.4 -> 57.0	6	274.4 -> 113.0	6	9.876
13C Dimethyl heptyl phenol monoethoxylate	-	Octylphenol diethoxylate d2			288.4 -> 127.1	2	288.4 -> 71.0	10	10.454
Octylphenol diethoxylate d2	-	-			270.4 -> 113.0	2	270.4 -> 57.0	2	9.900
Octylphenol monoethoxylate d2	-	-			314.5 -> 185.0	6	314.5 -> 57.0	26	9.950

Table S-6. Chromatographic conditions for GC/MS and GC/MS/MS analysis

Compound	Chromatography	Apparatus	Injector	Column	Oven parameters	Vector gas
PBDEs	GC/MS/MS-EI	Agilent GC (7890) triple Quad (7000 A)	Pulsed Splitless 285°C; 1 µl	J&W HP-5MS analytical column (15 m, 250 µm ID, 0.25 µm film thickness) with a deactivated silica pre-column (1 m; 0.25 mm ID)	102°C for 0.8 min, then 25°C/min to 185°C for 0 min, 15°C/min to 270°C for 0 min, 5°C/min to 285°C for 0 min and 30°C/min to 315°C for 3.1 min	Helium 1.8 ml/min
PCBs + HCB + PeCB + Lindane	GC/MS/MS-EI	Agilent GC (7890) triple Quad (7000 A)	Pulsed Splitless 280°C; 1 µl	HT8 (50 m, 250 µm ID, 0.25 µm; from SGE) with a desactivated silica pre-column (1 m; 0.25 mm ID from Restek)	80°C for 2 min, then 30°C/min to 170 °C for 0 min and 3°C/min to 300°C for 3 min	Helium 40 psi
Phthalates + Cypermethrin	GC/MS-EI	Agilent GC (7890) MS (5975)	Splitless 290°C; 1µl	ZB-5MS (30 m, 250 µm ID, 0.25 µm film thickness from Phenomenex) with a deactivated silica pre-column (1 m; 0.25 mm ID from Restek)	50°C for 1 min, then 30°C/min to 280°C for 0 min and 15°C/min to 310°C for 4 min	Helium 1 ml/min
PAHs	GC/MS-EI	Agilent GC (7890) MS (5975)	Pulsed Splitless 280°C; 1µl	ZB-5MS (30 m, 250 µm ID, 0.25 µm film thickness from Phenomenex) with a deactivated silica pre-column (1 m; 0.25 mm ID from Restek)	90°C for 1 min, then 10°C/min to 160°C for 0 min, 5°C/min to 240°C for 10 min and 4°C/min to 300°C for 2 min	Helium 1 ml/min
Synthetic musks	GC/MS-EI	Agilent GC (7890) MS (5975)	Splitless 290°C; 1µl	ZB-5MS (30 m, 250 µm ID, 0.25 µm film thickness from Phenomenex) with a deactivated silica pre-column (1 m; 0.25 mm ID from Restek)	90°C for 2 min, then 10°C/min to 180°C for 5 min and 30°C/min to 300°C for 7 min	Helium 1 ml/min

Table S-7. Mass spectrometry parameters for synthetic musks analysis by GC/MS

Compound	Surrogate standard	Internal standard	Quantification ion (m/z)	Qualification ion (m/z)	RT (min)	Others
Galaxolide	Musc xylene d15	-	243.0	258.0 / 213.0	16.950	Source: 230 °C Interface: 250 °C Quadrupole: 150 °C
Tonalide	Musc xylene d15	-	243.0	201.0 / 258.0	17.050	
Musc xylene d15	-	Benzofluoranthene d12	294.0	312.0	16.720	
Benzofluoranthene d12	-	-	264.0	132.0	23.000	

Table S-8. Mass spectrometry parameters for phthalates and cypermethrin analysis by GC/MS

Compound	Surrogate standard	Internal standard	Quantification ion (m/z)	Qualification ion (m/z)	RT (min)	Others
DMP	DEP d4	-	163.0	194.0	6.656	Source: 230 °C Interface: 200°C Quadrupole: 150°C
DEP	DEP d4	-	149.0	177.0	7.242	
DiBP	DEP d4	-	149.0	104.0	8.258	
DnBP	DEP d4	-	149.0	223.0	8.600	
BBP	DEHP d4	-	149.0	104.0	9.924	
DEHP	DEHP d4	-	149.0	279.0	10.489	
DnOP	DEHP d4	-	149.0	279.0	11.224	
DiNP	DEHP d4	-	293.0	149.0	11.741	
DiDP	DEHP d4	-	307.0	-	12.121	
DEP d4	-	DMP d4	153.0	181.0	7.300	
DEHP d4	-	DnOP d4	153.0	171.0	10.550	
DMP d4	-	-	167.1	198.1	6.620	
DnOP d4	-	-	153.1	283.2	11.08	
Cypermethrin	13C Cypermethrin	-	181.0	163.0	11.519	
13C Cypermethrin	-	DnOP d4	189.0	163.0	11.050	
DnOP d4	-	-	153.1	283.2	11.180	

Table S-9. Mass spectrometry parameters for PAHs analysis by GC/MS

Compound	Surrogate standard	Internal standard	Quantification ion (m/z)	Qualification ion (m/z)	RT (min)	Others
Acenaphthylene	Phenanthrene d10	-	152.0	151.0	9.40	Source: 230°C Interface: 250°C Quadrupole: 150°C
Acenaphthene	Phenanthrene d10	-	153.0	154.0	9.80	
Fluorene	Phenanthrene d10	-	166.0	165.0	11.50	
Phenanthrene	Phenanthrene d10	-	178.0	179.0	14.60	
Anthracene	Phenanthrene d10	-	178.0	179.0	15.00	
Fluoranthene	Pyrene d10	-	202.0	200.0	19.70	
Pyrene	Pyrene d10	-	202.0	200.0	20.00	
Benzo(a)anthracene	Benzo(a)anthracene d12	-	228.0	226.0	26.35	
Chrysene	Benzo(a)anthracene d12	-	228.0	226.0	26.60	
Benzo(b)fluoranthene	Benzo(a)anthracene d12	-	252.0	253.0	35.11	
Benzo(k)fluoranthene	Benzo(a)anthracene d12	-	252.0	253.0	35.50	
Benzo(a)pyrene	Benzo(a)anthracene d12	-	252.0	253.0	37.80	
Indeno(c,d)pyrene	Benzo(a)anthracene d12	-	276.0	274.0	45.40	
Dibenzo(a,h)anthracene	Benzo(a)anthracene d12	-	278.0	276.0	45.70	
Benzo(g,h,i)perylene	Benzo(a)anthracene d12	-	276.0	274.0	46.60	
Phénanthrene d10	-	Fluorene d10	188.0	189.0	14.65	
Pyrene d10	-	Fluoranthene d10	212.0	213.0	20.51	
Benzo(a)anthracene d12	-	Dibenzo(a,h)anthracene d14	240.0	236.0	26.30	
Fluorene d10	-	-	176.0	146.1	11.35	
Fluoranthene d10	-	-	212.0	106.1	20.00	
Dibenzo(a,h)anthracene d14	-	-	292.0	146.1	46.50	

Table S-10. Mass spectrometry parameters for PCBs and lindane analysis by GC/MS/MS

Compound	Surrogate standard	Internal standard	Quantification transition		Qualification transition		Dwell time (ms)	RT (min)	Others
			m/z	CE (eV)	m/z	CE (eV)			
PeCB	PCB 30	-	250.0 -> 215.0	25	250.0 -> 142.0	40	50	14.00	Source: 230°C Interface: 200°C Quadrupole: 150°C
HCB	PCB 30	-	249.0 -> 214.0	13	284.0 -> 249.0	18	50	19.10	
Lindane	Lindane d6	-	216.8 -> 180.8	10	180.8 -> 145.0	20	30	20.70	
PCB 28	PCB 30	-	256.0 -> 186.0	25	256.0 -> 151.0	25	50	23.50	
PCB 52	PCB 30	-	292.0 -> 222.0	27	292.0 -> 220.0	27	25	25.20	
PCB 101	PCB 30	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	31.00	
PCB 110	PCB 30	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	33.70	
PCB 77	PCB 30	-	292.0 -> 222.0	27	292.0 -> 220.0	27	25	33.80	
PCB 81	PCB 30	-	292.0 -> 222.0	27	292.0 -> 220.0	27	25	34.70	
PCB 123	PCB 107	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	35.70	
PCB 118	PCB 107	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	35.90	
PCB 114	PCB 107	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	36.60	
PCB 153	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	36.90	
PCB 105	PCB 107	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	38.00	
PCB 138	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	39.00	
PCB 126	PCB 107	-	326.0 -> 256.0	27	326.0 -> 254.0	27	25	40.40	
PCB 167	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	41.30	
PCB 156	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	42.80	
PCB 157	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	43.30	
PCB 180	PCB 107	-	394.0 -> 324.0	20	394.0 -> 359.0	20	60	43.40	
PCB 169	PCB 107	-	360.0 -> 290.0	27	360.0 -> 325.0	12	25	45.70	
PCB 189	PCB 107	-	394.0 -> 324.0	20	394.0 -> 359.0	20	60	48.00	
PCB 30	-	13C PCB 194	256.0 -> 186.0	25	256.0 -> 151.0	25	50	19.20	
Lindane d6	-	13C PCB 194	224.0 -> 187.0	10	224.0 -> 150.0	20	30	20.60	
PCB 107	-	13C PCB 194	326.0 -> 256.0	27	326.0 -> 254.0	27	25	35.51	
13C PCB 194	-	-	440.0 -> 370.0	40	442.0 -> 370.0	40	60	50.00	

Table S-11. Mass spectrometry parameters for PBDEs analysis by GC/MS/MS

Compound	Surrogate standard	Internal standard	Quantification transition		Qualification transition		Dwell time (ms)	RT (min)	Others
			m/z	CE (eV)	m/z	CE (eV)			
PBDE 28	13C PBDE 47	-	407.8 -> 247.9	20	247.9 -> 139.0	30	90	5.592	Source: 275°C Interface: 250°C Quadrupole: 150°C
PBDE 47	13C PBDE 47	-	485.7 -> 325.9	25	325.9 -> 138.0	55	80	6.800	
PBDE 100	13C PBDE 47	-	403.7 -> 137.0	55	565.7 -> 405.9	25	75	7.780	
PBDE 99	13C PBDE 47	-	403.7 -> 137.0	55	565.7 -> 405.9	25	75	8.000	
PBDE 154	13C PBDE 153	-	643.6 -> 493.9	25	483.9 -> 376.8	40	75	8.750	
PBDE 153	13C PBDE 153	-	643.6 -> 483.9	25	483.9 -> 376.8	40	75	9.150	
13C PBDE 47	-	CB 209	497.7 -> 337.9	25	337.9 -> 148.9	55	80	6.800	
13C PBDE 153	-	CB 209	655.7 -> 495.8	25	495.7 -> 335.8	40	75	9.100	
CB 209	-	-	499.7 -> 427.9	30	427.9 -> 357.8	45	75	8.400	

Table S-12. Spiking amounts for the evaluation of analytical performances and uncertainty

Compound	Spiked amount (ng)
DMP	2000
DEP	2000
DiBP	2000
DnBP	2000
BBP	2000
DEHP	2000
DnOP	2000
DiNP	2000
DiDP	2000
Galaxolide	100
Tonalide	100
OP	200
NP	200
OP1EO	100
OP2EO	100
NP1EO	100
NP2EO	100
Bisphenol A	500
TBBPA	200
Methyl Paraben	100
Ethyl Paraben	100
Propyl Paraben	100
Butyl Paraben	100
Acenaphthylene	200
Acenaphthene	200
Fluorene	200
Phenanthrene	200
Anthracene	200
Fluoranthene	200
Pyrene	200
Banzo(a)anthracene	200
Chrysene	200
Benzo(b)fluoranthene	200
Benzo(k)fluoranthene	200
Benzo(a)pyrene	200
Indéno(c,d)pyrene	200
Dibenzo(a,h)anthracene	200
Benzo(g,h,i)perylene	200
Cypermethrin	342
Lindane	100
HCB	100
PeCB	100
PCB 28	100
PCB 52	100
PCB 77	100
PCB 81	100
PCB 101	100
PCB 105	100
PCB 110	100
PCB 114	100
PCB 118	100
PCB 123	100
PCB 126	100
PCB 138	100
PCB 153	100
PCB 156	100
PCB 157	100
PCB 167	100
PCB 169	100
PCB 180	100
PCB 189	100
PBDE 28	25
PBDE 47	25
PBDE 99	25
PBDE 100	25
PBDE 153	25
PBDE 154	25
HBCD	100
Triclosan	100

Table S-13. Performance parameters of the analytical methods by atmospheric phase, gaseous and particulate (mean ± SD, n = 3 for recoveries)

Compound	Limits of detection (LOD) and quantification (LOQ) of compounds by atmospheric phase (pg·m^{-3})				Recovery rates of compounds by atmospheric phase (%)	
	LOD Gaseous phase	LOD Particulate phase	LOQ Gaseous phase	LOQ Particulate phase	Gaseous phase	Particulate phase
DMP	27.8	14.5	92.6	48.2	85.9 ± 5.7	84.3 ± 7.6
DEP	21.4	11.6	71.5	38.7	130 ± 31	114 ± 3
DiBP	115	119	383	395	137 ± 13	131 ± 9
DnBP	145	174	484	582	132 ± 11	132 ± 9
BBP	138	92.7	460	309	114 ± 6	109 ± 5
DEHP	123	83.4	410	278	106 ± 5	102 ± 4
DnOP	116	76.6	387	255	103 ± 5	104 ± 4
DiNP	44.4	31.3	148	104	32.8 ± 4.6	8.6 ± 3.7
DiDP	10.6	6.9	35.3	22.9	109 ± 6	106 ± 2
Galaxolide	0.55	0.21	1.84	0.71	66.8 ± 3.9	72.9 ± 7.6
Tonalide	0.67	0.26	2.23	0.87	64.5 ± 1.6	70.8 ± 3.5
OP	0.12	0.17	0.41	0.58	80.7 ± 1.4	82.3 ± 1.8
NP	1.40	2.06	4.68	6.88	106 ± 4	89.0 ± 4.3
OP1EO	0.12	0.28	0.41	0.92	95.1 ± 8.9	86.2 ± 7.3
OP2EO	0.03	0.03	0.09	0.10	124 ± 11	103 ± 10
NP1EO	0.32	0.31	1.06	1.04	98.2 ± 0.2	93.6 ± 2.1
NP2EO	0.04	0.03	0.12	0.09	114 ± 21	96.6 ± 2.1
Bisphenol A	0.20	0.20	0.66	0.66	104 ± 2	113 ± 6
TBBPA	-	0.37	-	1.22	-	111 ± 5
Methyl Paraben	0.10	0.09	0.32	0.31	80.6 ± 5.1	70.4 ± 3.4
Ethyl Paraben	0.13	0.08	0.42	0.25	77.9 ± 5.8	70.0 ± 0.8
Propyl Paraben	0.30	0.08	0.99	0.25	82.9 ± 1.1	77.8 ± 2.6
Butyl Paraben	0.03	0.05	0.09	0.16	103 ± 9	98.6 ± 2.3
Acenaphthylene	7.15	0.89	23.8	2.97	54.1 ± 10.0	38.3 ± 11.3
Acenaphthene	2.63	1.03	8.75	3.44	54.3 ± 11.2	40.3 ± 12.2
Fluorene	3.04	1.97	10.1	6.58	67.7 ± 9.8	65.5 ± 8.4
Phenanthrene	1.13	1.40	3.78	4.68	84.7 ± 3.2	76.1 ± 5.1
Anthracene	1.19	1.60	3.96	5.35	109 ± 5	99.3 ± 4.7
Fluoranthene	0.91	0.49	3.03	1.63	81.2 ± 4.0	70.2 ± 3.4
Pyrene	0.87	0.46	2.90	1.52	88.7 ± 4.3	77.6 ± 4.3
Benzo(a)anthracene	0.74	0.20	2.48	0.68	89.3 ± 2.3	81.0 ± 4.3
Chrysene	0.73	0.19	2.42	0.64	69.7 ± 1.9	69.6 ± 4.2
Benzo(b)fluoranthene	0.42	0.46	1.40	1.54	74.4 ± 2.7	72.9 ± 4.3
Benzo(k)fluoranthene	0.46	0.55	1.54	1.84	82.8 ± 4.1	70.9 ± 1.1
Benzo(a)pyrene	1.25	1.51	4.15	5.04	68.1 ± 2.5	72.3 ± 6.0
Indeno(c,d)pyrene	0.91	0.36	3.04	1.19	65.9 ± 2.8	73.4 ± 3.0
Dibenzo(a,h)anthracene	0.34	0.16	1.14	0.53	76.1 ± 8.1	71.2 ± 2.6
Benzo(g,h,i)perylene	0.69	0.23	2.30	0.77	68.3 ± 2.1	67.1 ± 2.9
Cypermethrin	0.02	0.02	0.07	0.06	70.2 ± 21.7	58.2 ± 15.8
Lindane	0.08	0.01	0.28	0.03	93.1 ± 7.4	114 ± 9
HCB	0.03	0.00	0.11	0.01	121 ± 26	117 ± 18
PeCB	0.72	0.10	2.41	0.33	56.0 ± 16.8	43.8 ± 15.5
PCB 28	0.61	0.27	2.04	0.91	98 ± 9	112 ± 8
PCB 52	0.40	0.09	1.32	0.31	102 ± 9	110 ± 6
PCB 77	0.54	0.19	1.81	0.63	110 ± 4	126 ± 8
PCB 81	0.63	0.14	2.10	0.48	111 ± 2	128 ± 9
PCB 101	0.03	0.00	0.11	0.01	107 ± 5	117 ± 4
PCB 105	0.03	0.00	0.10	0.01	112 ± 1	127 ± 6
PCB 110	0.70	0.18	2.34	0.61	99 ± 5	106 ± 4
PCB 114	0.96	0.41	3.19	1.36	110 ± 4	125 ± 6
PCB 118	0.35	0.06	1.17	0.19	104 ± 1	124 ± 7
PCB 123	0.72	0.12	2.39	0.40	111 ± 2	128 ± 5
PCB 126	0.95	0.15	3.16	0.52	113 ± 2	132 ± 8
PCB 138	1.15	0.23	3.82	0.76	110 ± 3	120 ± 3
PCB 153	0.62	0.09	2.06	0.31	111 ± 6	120 ± 3
PCB 156	0.77	0.15	2.56	0.51	102 ± 5	129 ± 11
PCB 157	0.94	0.32	3.12	1.07	100 ± 6	127 ± 10
PCB 167	0.54	0.15	1.79	0.51	103 ± 4	134 ± 11
PCB 169	1.00	0.16	3.35	0.52	103 ± 6	134 ± 12
PCB 180	1.51	0.16	5.04	0.54	99 ± 2	122 ± 8
PCB 189	2.62	0.21	8.73	0.71	99 ± 5	125 ± 10
PBDE 28	1.30	1.26	4.32	4.20	85.5 ± 2.4	84.8 ± 1.9
PBDE 47	0.39	0.37	1.29	1.24	90.2 ± 6.9	92.8 ± 2.9
PBDE 99	0.58	0.72	1.95	2.38	83.7 ± 17.6	88.3 ± 12.8
PBDE 100	1.77	2.15	5.90	7.17	80.2 ± 20.0	85.9 ± 13.1
PBDE 153	3.17	3.19	10.6	10.6	109 ± 6	98.3 ± 12.9
PBDE 154	1.74	1.49	5.80	4.97	147 ± 19	127 ± 4
HBCD	0.02	0.01	0.07	0.05	65.2 ± 5.9	60.3 ± 4.8
Triclosan	0.12	0.08	0.40	0.27	106 ± 12	86.0 ± 9.9

Table S-14. EDC concentrations (in ng.m^{-3}) in gaseous and particulate phases from the office according to sampling flow rates

Compound	Flow rate: 319 L·h^{-1} Linear speed: 67 cm·s^{-1}		Flow rate: 686 L·h^{-1} Linear speed: 144 cm·s^{-1}	
	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase
Phthalates				
DMP	2,872	0,060	1,938	0,065
DEP	29,01	12,54	17,05	13,93
DiBP	178,2	67,73	148,9	45,65
DnBP	44,88	40,74	41,80	23,89
BBP	1,526	17,66	1,163	23,52
DEHP	8,239	92,27	4,839	84,15
DnOP	0,779	0,313	0,860	0,190
DiNP	0,793	15,77	0,597	20,74
DiDP	0,000	3,096	0,000	4,268
∑ 7 Phthalates	265,5	231,3	216,6	191,4
Musks				
Galaxolide	6,566	0,387	21,71	0,322
Tonalide	3,046	0,069	4,701	0,053
Alkylphenols				
Octylphenol	2,856	0,139	3,933	0,102
Nonylphenol	12,85	0,368	24,99	0,301
∑ OP + NP	15,70	0,507	28,92	0,403
OP1EO	0,596	0,037	0,975	0,041
OP2EO	0,002	0,017	0,003	0,015
NP1EO	2,799	0,928	4,402	1,001
NP2EO	0,274	0,289	0,095	0,503
∑ Ethoxylates	3,672	1,270	5,475	1,561
Phenols				
Bisphenol A	0,068	0,390	0,023	0,521
TBBPA	-	0,020	-	0,028
Parabens				
Methyl-P	1,874	0,116	2,406	0,140
Ethyl-P	0,091	0,003	0,125	0,005
Propyl-P	0,524	0,023	0,969	0,027
Butyl-P	0,030	0,005	0,054	0,005
∑ 4 Parabens	2,519	0,147	3,555	0,176
PAHs				
Fluorene	66,43	0,011	92,15	0,016
Phenanthrene	90,17	0,125	90,08	0,152
Anthracene	12,87	0,025	19,30	0,024
Fluoranthene	11,24	0,224	10,26	0,258
Pyrene	7,575	0,216	7,174	0,246
Benzo(a)anthracene	0,185	0,150	0,262	0,158
Chrysene	0,258	0,223	0,351	0,241
Benzo(b)fluoranthene	0,006	0,510	0,009	0,699
Benzo(k)fluoranthene	0,021	0,130	0,031	0,185
Benzo(a)pyrene	0,067	0,217	0,057	0,309
Indeno(c,d)pyrene	0,058	0,277	0,066	0,387
Dibenzo(a,h)anthracene	0,091	0,038	0,109	0,053
Benzo(g,h,i)perylene	0,019	0,285	0,025	0,403
∑ 8 PAH-NF	11,69	1,832	10,82	2,452
Pesticides				
Cypermethrin	2,146	27,189	2,403	5,479
Lindane	0,88	0,012	0,62	0,010
PCBs				
HCB	1,246	0,001	1,151	0,001
PeCB	1,410	0,001	1,223	0,001
PCB 28	0,225	0,000	0,289	0,000
PCB 52	2,067	0,004	2,675	0,004
PCB 77	0,012	0,000	0,009	0,000
PCB 81	0,006	0,000	0,007	0,000
PCB 101	0,404	0,003	0,562	0,003
PCB 105	0,017	0,001	0,024	0,001
PCB 110	0,136	0,002	0,189	0,002
PCB 114	0,001	0,000	0,002	0,000
PCB 118	0,086	0,002	0,108	0,002
PCB 123	0,000	0,000	0,000	0,000
PCB 126	0,001	0,000	0,000	0,000
PCB 138	0,028	0,020	0,035	0,017
PCB 153	0,042	0,023	0,055	0,021
PCB 156	0,001	0,000	0,001	0,000
PCB 157	0,000	0,000	0,000	0,000
PCB 167	0,001	0,000	0,001	0,000
PCB 169	0,000	0,000	0,001	0,000
PCB 180	0,006	0,001	0,009	0,001
PCB 189	0,000	0,000	0,000	0,000
∑ 7 PCB	2,858	0,053	3,733	0,049
∑ DL-PCB	0,125	0,004	0,154	0,003
PBDEs				
PBDE 28	0,002	0,000	0,002	0,000
PBDE 47	0,057	0,010	0,089	0,012
PBDE 99	0,005	0,019	0,012	0,023
PBDE 100	0,003	0,004	0,005	0,005
PBDE 153	0,005	0,005	0,004	0,005
PBDE 154	0,004	0,006	0,003	0,005
∑ 6 BDE	0,076	0,044	0,115	0,051
Others				
HBCD	0,000	0,001	0,000	0,001
Triclosan	0,224	0,052	0,416	0,072

Table S-15. Vapor pressure parameters and distribution (in %) of target compounds between the two serial cartridges (A1 and A2) of XAD-2 resin and the QMA filter (mean ± SD, n = 2)

Compound	Distribution of compounds between cartridges A1 and A2 and QMA filter (%)					
	XAD cartridge A1	XAD cartridge A2	QMA	Vapor pressure (Pa)	Vapor pressure temperature (°C)	References
DMP	93.8 ± 0.6	4.1 ± 0.4	2.1±0.2	2.67×10^{-1}	25°C	1
DEP	78.1 ± 2.6	21.8 ± 2.6	0.1±0.0	1.33×10^{-1}	25°C	1
DiBP	75.5 ± 5.3	8.8 ± 4.8	15.8±0.5	7.73×10^{-2}	25°C	1
DnBP	57.4 ± 4.3	8.2 ± 2.8	34.4±7.0	3.60×10^{-3}	25°C	1
BBP	5.5 ± 0.6	6.2 ± 0.3	88.3±0.4	6.67×10^{-4}	25°C	1
DEHP	1.6 ± 1.0	28.1 ± 3.0	70.3±4.0	1.33×10^{-5}	25°C	1
DnOP	< LOQ	< LOQ	< LOQ	1.33×10^{-5}	25°C	1
DiNP	0.6 ± 0.0	0.6 ± 0.0	98.9±0.1	6.67×10^{-5}	25°C	1
DiDP	0.0 ± 0.0	0.0 ± 0.0	100.0±0.0	7.04×10^{-5}	25°C	2
Galaxolide	87.6 ± 2.8	4.1 ± 0.6	8.3±3.4	7.27×10^{-2}	25°C	3
Tonalide	95.5 ± 0.1	3.4 ± 0.9	1.1±0.8	6.83×10^{-2}	Not specified	3
OP	91.5 ± 0.4	2.2 ± 1.1	6.3±0.7	1.87×10^{-1}	25°C	4
NP	95.0 ± 0.2	2.1 ± 0.9	2.9±1.1	1.09×10^{-1}	25°C	3
OP1EO	94.0 ± 2.1	6.0 ± 2.1	0.1±0.0	1.45×10^{-4}	25°C	5
OP2EO	< LOQ	< LOQ	< LOQ	1.22×10^{-3}	Not specified	6
NP1EO	52.9 ± 9.1	2.4 ± 1.2	44.7±10.3	3.20×10^{-3}	25°C	7
NP2EO	1.0 ± 0.1	0.6 ± 0.1	98.4±0.2	2.97×10^{-6}	25°C	8
Bisphenol A	0.3 ± 0.2	0.1 ± 0.0	99.6±0.2	5.33×10^{-6}	25°C	3
TBBPA	ND	ND	ND	2.35×10^{-9}	25°C	9
Methyl Paraben	96.8 ± 1.4	2.1 ± 1.5	1.2±0.1	3.16×10^{-2}	25°C	3
Ethyl Paraben	97.4 ± 0.0	0.9 ± 1.1	1.7±1.2	1.24×10^{-2}	25°C	3
Propyl Paraben	96.9 ± 0.5	1.2 ± 1.1	1.9±0.6	7.40×10^{-2}	25°C	3
Butyl Paraben	87.9 ± 4.9	2.4 ± 1.0	9.7±5.9	2.48×10^{-2}	25°C	3
Acenaphthylene	ND	ND	ND	8.20×10^{-1}	25°C	10
Acenaphthene	ND	ND	ND	2.80×10^{-1}	25°C	11
Fluorene	97.3 ± 0.4	2.6 ± 0.3	0.2±0.0	8.00×10^{-2}	25°C	12
Phenanthrene	96.8 ± 0.9	3.2 ± 0.9	0.1±0.0	1.61×10^{-2}	25°C	3
Anthracene	67.7 ± 0.1	3.7 ± 1.2	28.7±1.2	8.75×10^{-4}	25°C	3
Fluoranthene	93.2 ± 0.6	3.4 ± 0.8	3.4±0.2	1.23×10^{-3}	25°C	3
Pyrene	91.9 ± 0.3	3.4 ± 0.9	4.7±0.6	6.00×10^{-4}	25°C	3
Benzo(a)anthracene	47.8 ± 14.7	5.2 ± 1.5	47.0±16.1	2.80×10^{-5}	25°C	11
Chrysene	31.7 ± 8.7	3.5 ± 0.9	64.8±9.5	8.31×10^{-7}	25°C	3
Benzo(b)fluoranthene	8.7 ± 2.3	2.5 ± 0.1	88.8±2.4	1.07×10^{-5}	25°C	13
Benzo(k)fluoranthene	1.0 ± 0.1	1.0 ± 0.1	97.9±0.2	5.20×10^{-8}	25°C	10
Benzo(a)pyrene	27.7 ± 5.1	21.2 ± 2.4	51.1±7.4	7.00×10^{-7}	25°C	10
Indeno(c,d)pyrene	66.9 ± 5.9	33.1 ± 5.9	0.0±0.0	1.73×10^{-8}	25°C	3
Dibenzo(a,h)anthracene	31.4 ± 9.4	10.5 ± 0.7	58.1±10.1	3.71×10^{-10}	25°C	10
Benzo(g,h,i)perylene	6.4 ± 2.2	2.0 ± 1.1	91.6±1.1	1.33×10^{-8}	25°C	3
Cypermethrin	0.4 ± 0.1	0.2 ± 0.0	99.4±0.1	3.33×10^{-7}	25°C	14
Lindane	92.0 ± 3.1	8.0 ± 3.1	0.0±0.0	5.60×10^{-3}	20°C	3
HCB	99.5 ± 0.2	0.5 ± 0.2	0.0±0.0	2.29×10^{-3}	25°C	3
PeCB	95.1 ± 0.2	4.6 ± 0.1	0.3±0.1	2.67×10^{-1}	25°C	3
PCB 28	81.9 ± 0.4	16.6 ± 0.6	1.4±0.2	2.60×10^{-2}	25°C	3
PCB 52	97.4 ± 0.4	2.4 ± 0.5	0.3±0.1	1.13×10^{-3}	25°C	3
PCB 77	92.4 ± 0.5	1.6 ± 1.0	6.1±0.4	2.19×10^{-3}	25°C	3
PCB 81	79.9 ± 5.2	9.3 ± 2.9	10.8±8.2	1.65×10^{-3}	25°C	15
PCB 101	95.7 ± 0.3	3.6 ± 0.1	0.8±0.2	3.36×10^{-3}	25°C	3
PCB 105	80.6 ± 4.3	10.7 ± 3.2	8.7±7.5	8.71×10^{-4}	25°C	3
PCB 110	93.4 ± 1.3	5.1 ± 0.7	1.5±0.6	2.28×10^{-3}	25°C	16
PCB 114	39.5 ± 6.1	43.7 ± 2.7	16.9±3.5	7.29×10^{-4}	25°C	3
PCB 118	89.2 ± 1.4	8.9 ± 2.0	1.9±0.6	1.20×10^{-3}	25°C	3
PCB 123	0.0 ± 0.0	0.0 ± 0.0	100.0±0.0	9.01×10^{-4}	25°C	16
PCB 126	0.4 ± 0.5	1.8 ± 2.6	97.8±2.0	4.94×10^{-4}	25°C	16
PCB 138	79.4 ± 3.7	19.3 ± 3.6	1.3±0.1	5.11×10^{-4}	25°C	16
PCB 153	82.1 ± 3.5	17.6 ± 3.5	0.3±0.0	4.57×10^{-4}	25°C	3
PCB 156	20.2 ± 21.8	12.1 ± 14.2	67.7±36.0	7.33×10^{-4}	25°C	15
PCB 157	25.2 ± 26.7	12.2 ± 14.2	62.6±40.9	1.39×10^{-4}	25°C	15
PCB 167	8.9 ± 11.1	5.0 ± 6.4	86.1±17.5	1.88×10^{-4}	25°C	15
PCB 169	5.3 ± 6.1	14.3 ± 17.8	80.5±23.9	5.36×10^{-5}	25°C	15
PCB 180	29.5 ± 24.5	20.6 ± 20.0	49.9±44.4	1.30×10^{-4}	25°C	16
PCB 189	6.4 ± 9.1	2.8 ± 3.8	90.7±12.9	1.44×10^{-4}	25°C	17
PBDE 28	< LOQ	< LOQ	< LOQ	2.19×10^{-3}	25°C	18
PBDE 47	90.3 ± 2.0	0.7 ± 0.3	9.1±2.3	2.51×10^{-4}	25°C	19
PBDE 99	30.7 ± 9.2	7.5 ± 1.0	61.7±8.2	4.67×10^{-5}	25°C	20
PBDE 100	< LOQ	< LOQ	< LOQ	2.87×10^{-5}	25°C	18
PBDE 153	< LOQ	< LOQ	< LOQ	2.09×10^{-6}	25°C	18
PBDE 154	< LOQ	< LOQ	< LOQ	3.80×10^{-6}	25°C	18
HBCD	3.6 ± 0.3	3.6 ± 0.3	92.7±0.6	6.29×10^{-4}	21°C	3
Triclosan	97.0 ± 0.6	0.3 ± 0.0	2.6±0.6	6.13×10^{-4}	20°C	3

Table S-16. Uncertainties of target compound measurements calculated by the fully nested design experiment

Compound	u^2 preproc. steps $(ng \cdot m^{-3})^2$		u^2 days $(ng \cdot m^{-3})^2$		u^2 replicates $(ng \cdot m^{-3})^2$		Global uncertainty $(ng \cdot m^{-3})$	
	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase
DMP	6.05×10^{-2}	1.75×10^{-1}	7.54×10^{-5}	1.57×10^{-2}	1.46×10^{-2}	4.68×10^{-3}	0.55	0.88
DEP	5.83	3.35×10^{-1}	0.00	8.68×10^{-3}	1.48	1.30×10^{-2}	5.41	1.19
DiBP	6.33	1.75×10^{1}	5.17×10^{-1}	8.11×10^{-3}	5.31×10^{-2}	2.73×10^{-2}	5.25	8.38
DnBP	3.60	1.29×10^{1}	5.64×10^{-1}	0.00	5.18×10^{-2}	4.34×10^{-2}	4.10	7.21
BBP	0.00	5.17	1.29×10^{1}	2.25	5.00×10^{-1}	5.78×10^{-1}	7.32	5.66
DEHP	1.67×10^{-1}	3.96	2.97	5.28×10^{-1}	3.41×10^{-2}	4.04×10^{-1}	3.56	4.43
DnOP	0.00	1.05×10^{1}	3.91	8.70×10^{-1}	9.93×10^{-1}	1.10×10^{-1}	4.43	6.78
DiNP	6.12×10^{-4}	0.00	1.03×10^{-2}	3.23×10^{-2}	4.97×10^{-3}	3.50×10^{-2}	0.25	0.52
DiDP	0.00	0.00	1.05×10^{1}	0.00	1.51×10^{-1}	5.60	6.53	4.73
Galaxolide	1.25×10^{-3}	0.00	3.89×10^{-4}	1.42×10^{-3}	8.29×10^{-5}	2.96×10^{-5}	0.08	0.08
Tonalide	5.76×10^{-4}	0.00	1.74×10^{-4}	2.75×10^{-4}	4.82×10^{-5}	7.41×10^{-5}	0.06	0.04
OP	4.58×10^{-4}	3.53×10^{-2}	1.62×10^{-3}	1.04×10^{-3}	2.84×10^{-4}	2.66×10^{-4}	0.10	0.38
NP	0.00	7.69×10^{-3}	6.54×10^{-3}	1.90×10^{-3}	1.04×10^{-4}	2.59×10^{-4}	0.16	0.20
OP1EO	3.60×10^{-4}	3.80×10^{-4}	0.00	8.46×10^{-5}	1.02×10^{-4}	1.28×10^{-4}	0.04	0.05
OP2EO	0.00	1.86×10^{-3}	6.84×10^{-3}	1.40×10^{-3}	6.64×10^{-5}	1.65×10^{-5}	0.17	0.11
NP1EO	1.50×10^{-4}	9.09×10^{-4}	0.00	1.40×10^{-5}	1.27×10^{-4}	4.33×10^{-5}	0.03	0.06
NP2EO	0.00	1.04×10^{-4}	3.19×10^{-5}	1.05×10^{-4}	5.95×10^{-5}	7.89×10^{-5}	0.02	0.03
Bisphenol A	3.79×10^{-2}	0.00	1.78×10^{-2}	4.04×10^{-1}	7.25×10^{-4}	2.19×10^{-3}	0.48	1.27
TBBPA	ND	7.59×10^{-3}	ND	5.56×10^{-4}	ND	1.34×10^{-4}	ND	0.18
Methyl Paraben	1.69×10^{-3}	3.71×10^{-4}	7.67×10^{-4}	4.85×10^{-4}	4.50×10^{-5}	8.92×10^{-6}	0.10	0.06
Ethyl Paraben	5.87×10^{-4}	4.71×10^{-4}	5.91×10^{-5}	3.64×10^{-5}	3.81×10^{-7}	3.52×10^{-5}	0.05	0.05
Propyl Paraben	5.87×10^{-4}	2.55×10^{-4}	5.91×10^{-5}	1.17×10^{-3}	3.81×10^{-7}	2.60×10^{-5}	0.05	0.08
Butyl Paraben	2.29×10^{-3}	0.00	2.57×10^{-3}	2.02×10^{-3}	1.33×10^{-4}	1.79×10^{-5}	0.14	0.09
Acenaphtylene	5.76×10^{-2}	0.00	2.05×10^{-5}	1.98×10^{-3}	1.27×10^{-4}	2.50×10^{-5}	0.48	0.09
Acenaphtene	4.95×10^{-2}	0.00	4.23×10^{-5}	2.22×10^{-3}	4.88×10^{-5}	3.60×10^{-4}	0.45	0.10
Fluorene	1.53×10^{-2}	0.00	1.33×10^{-4}	2.01×10^{-2}	9.49×10^{-5}	1.58×10^{-4}	0.25	0.28
Phenanthrene	3.24×10^{-3}	7.69×10^{-3}	0.00	5.26×10^{-4}	2.09×10^{-4}	3.70×10^{-4}	0.12	0.19
Anthracene	7.57×10^{-3}	3.44×10^{-2}	0.00	1.00×10^{-2}	1.93×10^{-3}	2.17×10^{-3}	0.19	0.43
Fluoranthene	1.65×10^{-2}	3.40×10^{-2}	3.38×10^{-3}	0.00	2.69×10^{-3}	7.62×10^{-3}	0.30	0.41
Pyrene	1.73×10^{-2}	2.25×10^{-2}	1.24×10^{-3}	2.05×10^{-3}	6.54×10^{-4}	2.15×10^{-3}	0.28	0.33
Banzo(a)anthracene	1.71×10^{-2}	1.31×10^{-2}	0.00	1.80×10^{-2}	2.95×10^{-2}	3.05×10^{-3}	0.43	0.37
Chrysene	5.69×10^{-3}	0.00	0.00	0.00	1.15×10^{-2}	3.21×10^{-3}	0.26	0.11
Benzo(b)fluoranthene	2.17×10^{-4}	1.09	0.00	7.42×10^{-2}	4.52×10^{-3}	5.08×10^{-3}	0.14	2.16
Benzo(k)fluoranthene	4.38×10^{-3}	2.91×10^{-2}	0.00	1.06×10^{-2}	1.07×10^{-2}	4.48×10^{-3}	0.25	0.42
Benzo(a)pyrene	2.35×10^{-3}	9.49×10^{-3}	0.00	3.88×10^{-3}	4.87×10^{-3}	7.13×10^{-5}	0.17	0.23
Indéno(c,d)pyrene	0.00	4.56×10^{-3}	1.84×10^{-2}	0.00	6.64×10^{-3}	3.89×10^{-2}	0.32	0.42
Dibenzo(a,h)anthracene	2.61×10^{-4}	9.01×10^{-3}	7.60×10^{-3}	1.50×10^{-2}	2.33×10^{-3}	6.79×10^{-4}	0.20	0.31
Benzo(g,h,i)perylene	8.70×10^{-3}	0.00	0.00	1.10×10^{-2}	3.85×10^{-3}	2.81×10^{-4}	0.22	0.21
Cypermethrin	ND	ND	ND	ND	ND	ND	ND	ND
Lindane	0.00	6.97×10^{-3}	3.57×10^{-4}	0.00	4.53×10^{-5}	1.42×10^{-4}	0.04	0.17
HCB	0.00	2.77×10^{-3}	0.00	0.00	3.38×10^{-4}	4.02×10^{-5}	0.04	0.11
PeCB	2.96×10^{-2}	1.45×10^{-3}	1.26×10^{-4}	2.05×10^{-5}	4.30×10^{-5}	6.12×10^{-7}	0.34	0.08
PCB 28	4.71×10^{-3}	2.50×10^{-3}	2.96×10^{-5}	1.04×10^{-3}	6.41×10^{-4}	3.10×10^{-4}	0.15	0.12
PCB 52	5.85×10^{-3}	0.00	3.97×10^{-4}	1.05×10^{-3}	8.45×10^{-4}	1.37×10^{-3}	0.17	0.10
PCB 77	6.01×10^{-3}	0.00	4.03×10^{-3}	1.19×10^{-2}	1.52×10^{-3}	1.16×10^{-3}	0.22	0.23
PCB 81	5.34×10^{-3}	0.00	2.65×10^{-3}	8.04×10^{-3}	2.10×10^{-3}	1.89×10^{-3}	0.20	0.20
PCB 101	9.05×10^{-3}	0.00	3.13×10^{-4}	3.55×10^{-3}	1.21×10^{-3}	3.76×10^{-4}	0.21	0.13
PCB 105	1.54×10^{-4}	1.26×10^{-2}	1.00×10^{-4}	0.00	2.57×10^{-4}	5.34×10^{-4}	0.05	0.23
PCB 110	7.33×10^{-3}	0.00	1.94×10^{-3}	2.93×10^{-3}	7.10×10^{-4}	2.91×10^{-4}	0.20	0.11
PCB 114	3.64×10^{-4}	1.41×10^{-2}	1.61×10^{-5}	0.00	3.35×10^{-4}	3.22×10^{-4}	0.05	0.24
PCB 118	6.40×10^{-4}	1.46×10^{-2}	0.00	0.00	3.23×10^{-4}	4.08×10^{-4}	0.06	0.24
PCB 123	6.48×10^{-4}	1.60×10^{-2}	0.00	0.00	3.42×10^{-4}	5.72×10^{-4}	0.06	0.26
PCB 126	6.59×10^{-4}	1.81×10^{-2}	2.78×10^{-4}	0.00	4.05×10^{-4}	6.12×10^{-4}	0.07	0.27
PCB 138	3.18×10^{-4}	1.24×10^{-2}	1.05×10^{-4}	0.00	3.88×10^{-4}	3.84×10^{-4}	0.06	0.23
PCB 153	0.00	1.12×10^{-2}	1.09×10^{-4}	0.00	2.92×10^{-4}	4.48×10^{-4}	0.04	0.22
PCB 156	1.98×10^{-4}	1.53×10^{-2}	7.67×10^{-4}	1.57×10^{-4}	3.56×10^{-4}	6.63×10^{-4}	0.07	0.25
PCB 157	4.42×10^{-4}	1.59×10^{-2}	2.34×10^{-4}	0.00	4.30×10^{-4}	5.30×10^{-4}	0.07	0.26
PCB 167	8.74×10^{-4}	1.64×10^{-2}	1.73×10^{-4}	8.97×10^{-5}	5.27×10^{-4}	4.53×10^{-4}	0.08	0.26
PCB 169	6.08×10^{-4}	1.97×10^{-2}	3.37×10^{-4}	0.00	4.87×10^{-4}	6.79×10^{-4}	0.08	0.29
PCB 180	3.92×10^{-4}	1.41×10^{-2}	3.98×10^{-4}	2.61×10^{-5}	7.03×10^{-4}	4.42×10^{-4}	0.08	0.24
PCB 189	1.34×10^{-4}	1.64×10^{-2}	2.33×10^{-4}	0.00	5.86×10^{-4}	3.33×10^{-4}	0.06	0.26
PBDE 28	1.55×10^{-4}	0.00	7.15×10^{-4}	1.08×10^{-4}	6.39×10^{-5}	1.10×10^{-4}	0.06	0.03
PBDE 47	5.44×10^{-4}	0.00	3.46×10^{-4}	0.00	4.33×10^{-5}	1.05×10^{-4}	0.06	0.02
PBDE 99	4.35×10^{-4}	1.26×10^{-5}	2.50×10^{-4}	1.09×10^{-5}	1.20×10^{-4}	6.93×10^{-5}	0.06	0.02
PBDE 100	4.79×10^{-4}	1.08×10^{-5}	2.32×10^{-4}	7.51×10^{-6}	9.82×10^{-5}	6.81×10^{-5}	0.06	0.02
PBDE 153	0.00	6.01×10^{-5}	0.00	0.00	1.80×10^{-3}	2.81×10^{-4}	0.08	0.04
PBDE 154	0.00	0.00	0.00	0.00	1.27×10^{-3}	5.80×10^{-4}	0.07	0.05
HBCD	0.00	0.00	6.59×10^{-5}	1.41×10^{-6}	1.04×10^{-5}	1.90×10^{-5}	0.02	0.01
Triclosan	3.31×10^{-5}	0.00	6.90×10^{-5}	1.28×10^{-4}	1.55×10^{-5}	2.10×10^{-5}	0.02	0.02

Table S-17. EDC concentrations in gaseous and particulate phases collected indoors in summer 2013. Each value, expressed as ng.m^{-3}, corresponds to the mean of three successive samplings (mean ± SD, n = 3).

Compounds	Day Nursery		House		Office		Apartment	
	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase	Gaseous phase	Particulate phase
Phthalates								
DMP	53.33±13.45	<LOQ	43.94±9.46	<LOQ	10.04±8.99	<LOQ	60.85±16.95	<LOQ
DEP	223.2±170.7	1.997±0.853	216.8±58.6	2.085±3.495	128.8±20.2	1.135±0.785	247.1±23.3	2.886±3.472
DiBP	181.5±22.5	17.49±5.19	364.7±114.6	13.16±8.38	417.7±102.3	19.28±11.42	231.0±44.7	8.003±6.414
DnBP	284.2±86.8	7.949±2.887	193.9±65.8	8.215±2.743	133.1±46.4	10.37±7.07	204.9±5.1	15.12±14.63
BBP	70.65±54.24	110.0±72.6	16.71±17.66	2.063±0.507	11.03±3.93	9.628±1.536	16.16±23.63	2.080±1.324
DEHP	32.20±15.85	263.9±38.7	21.07±20.79	153.7±31.5	6.971±1.977	90.98±34.80	13.21±10.70	177.7±32.7
DnOP	<LOQ	0.325±0.106	<LOQ	<LOQ	<LOQ	0.262±0.156	<LOQ	<LOQ
DiNP	2.369±3.716	14.29±2.22	0.723±1.004	13.19±1.28	2.460±1.237	22.20±7.26	6.635±5.639	18.66±2.40
DiDP	<LOQ	13.14±4.77	<LOQ	3.479±2.436	<LOQ	4.053±0.176	<LOQ	1.883±0.327
∑ 7 Phthalates	845.1±103.3	401.7±105.1	857.1±139.9	179.3±66.1	707.7±158.5	131.6±34.5	773.2±110.4	205.8±76.5
Musks								
Galaxolide	35.41±3.91	0.204±0.017	59.21±14.02	0.171±0.091	32.81±15.61	0.383±0.013	21.85±8.78	0.075±0.039
Tonalide	36.77±5.13	0.119±0.078	9.108±2.643	0.021±0.006	8.886±3.324	0.050±0.024	15.96±3.26	0.060±0.029
Alkylphenols								
Octylphenol	1.512±0.427	0.002±0.001	1.316±0.399	0.003±0.001	1.360±0.237	0.002±0.002	1.336±0.194	0.004±0.002
Nonylphenol	25.69±3.92	0.207±0.074	27.19±8.71	0.170±0.081	16.12±5.82	0.152±0.110	10.57±2.12	0.274±0.356
∑ OP + NP	27.20±17.09	0.209±0.145	28.51±18.30	0.172±0.118	17.48±10.43	0.154±0.106	11.91±6.53	0.278±0.191
OP1EO	0.116±0.163	0.494±0.278	0.298±0.137	0.009±0.006	0.562±0.344	0.020±0.004	0.253±0.075	0.040±0.022
OP2EO	<LOQ	0.016±0.002	<LOQ	0.006±0.005	<LOQ	0.028±0.009	<LOQ	0.038±0.010
NP1EO	3.544±0.166	0.444±0.179	5.174±0.880	0.184±0.062	4.614±2.271	0.467±0.225	6.940±3.678	0.556±0.224
NP2EO	0.096±0.006	0.330±0.017	0.187±0.069	0.205±0.043	0.102±0.082	0.409±0.099	0.206±0.153	0.359±0.020
∑ Ethoxylates	3.756±1.985	1.284±0.215	5.658±2.848	0.403±0.108	5.278±2.483	0.923±0.240	7.400±3.874	0.993±0.255
Phenols								
Bisphenol A	0.002±0.003	0.332±0.378	0.003±0.004	0.198±0.048	0.002±0.003	0.560±0.633	0.003±0.005	0.129±0.069
TBBPA	-	0.009±0.004	-	0.005±0.005	-	0.117±0.189	-	0.019±0.017
Parabens								
Methyl-P	3.735±1.836	0.052±0.004	1.279±0.216	0.012±0.005	7.875±1.393	0.080±0.032	1.986±0.175	0.019±0.008
Ethyl-P	0.448±0.207	0.005±0.003	0.130±0.071	0.001±0.001	0.396±0.035	0.003±4.10^{-4}	0.173±0.065	0.001±0.001
Propyl-P	0.712±0.612	0.015±0.004	0.268±0.041	0.004±0.003	2.229±0.402	0.053±0.023	0.271±0.057	0.004±0.003
Butyl-P	0.428±0.096	0.006±0.002	0.032±0.004	0.001±2.10^{-4}	0.100±0.055	0.001±3.10^{-4}	0.128±0.030	0.003±0.001
∑ 4 Parabens	5.322±1.608	0.079±0.022	1.709±0.576	0.019±0.005	10.60±3.61	0.137±0.038	2.557±0.900	0.027±0.008
PAH								
Acenaphtylene	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
Acenaphtene	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
Fluorene	10.89±3.50	<LOQ	22.54±4.07	<LOQ	6.478±2.681	<LOQ	22.54±7.60	<LOQ
Phenanthrene	15.06±5.48	0.047±0.022	19.73±6.50	0.039±0.039	15.04±8.08	0.021±0.017	22.21±5.87	0.068±0.074
Anthracene	0.563±0.435	0.006±0.003	2.774±1.256	0.006±0.003	0.829±0.597	0.006±0.003	2.098±0.761	<LOQ
Fluoranthene	2.764±3.173	0.045±0.008	3.320±2.366	0.098±0.111	4.601±5.132	0.040±0.035	2.282±0.819	0.148±0.189
Pyrene	2.086±2.369	0.043±0.012	2.426±1.428	0.063±0.052	3.236±3.361	0.051±0.019	1.426±0.424	0.092±0.089
Benzo(a)anthracene	0.012±0.005	0.015±0.012	0.028±0.026	0.019±0.007	0.009±0.004	0.014±0.008	0.019±0.014	0.026±0.021
Chrysene	0.019±0.016	0.039±0.011	0.048±0.047	0.031±0.010	0.024±0.020	0.045±0.007	0.042±0.036	0.040±0.016
Benzo(b)fluoranthene	0.003±0.003	0.175±0.215	0.027±0.022	0.059±0.008	0.006±0.009	0.066±0.020	0.007±0.006	0.069±0.028
Benzo(k)fluoranthene	0.002±0.002	0.052±0.069	<LOQ	0.014±0.001	0.005±0.008	0.016±0.006	0.005±0.007	0.015±0.005
Benzo(a)pyrene	<LOQ	0.082±0.115	0.008±0.005	0.014±0.002	0.006±0.004	0.018±0.008	<LOQ	0.018±0.009
Indeno(c,d)pyrene	0.013±0.004	0.173±0.257	0.012±0.002	0.029±0.005	0.020±0.009	0.025±0.009	0.017±0.001	0.027±0.012
Dibenzo(a,h)anthracene	0.001±0.001	0.006±0.008	0.014±0.021	0.002±0.001	0.002±0.001	0.001±0.001	0.001±0.001	0.001±0.001
Benzo(g,h,i)perylene	0.011±0.007	0.193±0.258	0.009±0.003	0.040±0.005	0.021±0.009	0.048±0.015	0.021±0.005	0.048±0.021
∑ 8 PAH-NF	2.807±1.042	0.740±0.076	3.417±1.249	0.274±0.031	4.672±1.623	0.228±0.021	2.351±0.858	0.352±0.047
Pesticides								
Cypermethrin	8.658±8.052	14.22±13.81	4.662±1.802	7.343±5.481	3.105±4.264	11.49±8.82	4.506±6.714	14.98±18.31
Lindane	0.251±0.378	0.001±0.001	0.175±0.075	0.001±0.001	0.290±0.064	5.10^{-4}±0.001	5.324±1.241	0.015±0.013
PCB								
HCB	0.295±0.099	3.10^{-4}±2.10^{-4}	0.388±0.125	4.10^{-4}±5.10^{-4}	0.225±0.120	3.10^{-4}±3.10^{-4}	0.501±0.087	5.10^{-4}±5.10^{-4}
PeCB	0.064±0.047	<LOQ	0.260±0.095	<LOQ	0.142±0.064	<LOQ	0.317±0.112	<LOQ
PCB 28	0.069±0.014	0.001±0.001	0.138±0.056	<LOQ	0.197±0.091	<LOQ	0.123±0.015	<LOQ
PCB 52	0.149±0.051	<LOQ	0.250±0.084	<LOQ	1.544±0.482	0.001±5.10^{-4}	0.320±0.038	3.10^{-4}±2.10^{-4}
PCB 77	0.002±0.002	<LOQ	0.002±0.001	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 81	0.003±0.002	<LOQ	0.004±0.002	<LOQ	0.005±0.001	<LOQ	0.003±0.001	<LOQ
PCB 101	0.105±0.099	1.10^{-4}±2.10^{-4}	0.110±0.047	0.001±0.001	0.346±0.092	0.002±0.002	0.099±0.012	3.10^{-4}±3.10^{-4}
PCB 105	0.005±0.001	1.10^{-4}±1.10^{-4}	0.012±0.005	5.10^{-4}±0.001	0.015±0.004	0.001±0.001	0.006±0.002	1.10^{-4}±1.10^{-4}
PCB 110	0.050±0.047	<LOQ	0.056±0.019	<LOQ	0.131±0.034	0.002±0.002	0.039±0.004	<LOQ
PCB 114	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 118	0.015±0.004	<LOQ	0.045±0.010	0.001±0.001	0.088±0.050	0.002±0.003	0.020±0.008	<LOQ
PCB 123	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 126	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 138	0.007±0.006	0.002±0.003	0.016±0.006	0.002±0.003	0.022±0.013	0.003±0.002	0.010±0.009	0.002±0.003
PCB 153	0.010±0.009	<LOQ	0.028±0.002	0.001±0.001	0.036±0.016	0.001±0.001	0.020±0.014	<LOQ
PCB 156	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 157	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 167	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 169	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PCB 180	<LOQ	<LOQ	<LOQ	<LOQ	0.007±0.004	0.001±0.001	<LOQ	<LOQ
PCB 189	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
∑ 7 PCB	0.355±0.059	0.003±0.001	0.587±0.089	0.004±0.001	2.239±0.553	0.011±0.001	0.592±0.118	0.003±0.001
∑ DL-PCB	0.025±0.006	1.10^{-4}	0.063±0.020	0.001±0.000	0.108±0.045	0.003±0.001	0.028±0.010	1.10^{-4}
PBDE								
PBDE 28	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PBDE 47	0.022±0.019	0.003±1.10^{-4}	0.002±0.001	<LOQ	0.164±0.155	0.012±0.007	0.003±0.002	<LOQ
PBDE 99	<LOQ	<LOQ	<LOQ	<LOQ	0.034±0.035	0.021±0.013	<LOQ	<LOQ
PBDE 100	<LOQ	<LOQ	<LOQ	<LOQ	0.040±0.039	0.024±0.016	<LOQ	<LOQ
PBDE 153	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
PBDE 154	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ
∑ 6 BDE	0.022±0.019	0.003±1.10^{-4}	0.002±0.001	<LOQ	0.237±0.074	0.057±0.006	0.003±0.002	<LOQ
Others								
HBCD	1.10^{-4}±1.10^{-4}	0.001±3.10^{-4}	0.002±0.003	0.001±1.10^{-4}	1.10^{-4}±1.10^{-4}	0.001±3.10^{-4}	3.10^{-4}±0.001	3.10^{-4}±2.10^{-4}
Triclosan	0.061±0.039	0.007±0.002	0.091±0.033	0.013±0.007	0.208±0.036	0.022±0.005	0.135±0.020	0.018±0.006

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